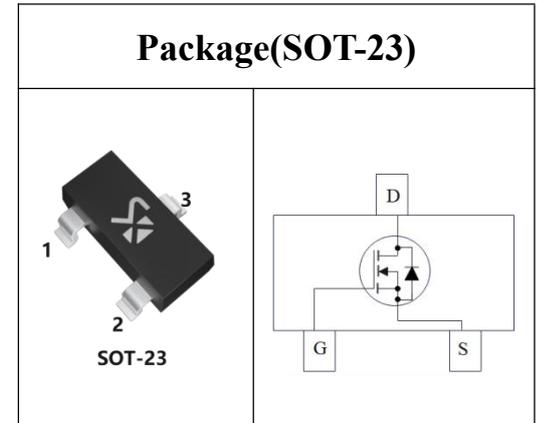


N-Channel Enhancement Mode MOSFET

Features

- 50V/0.1A, $R_{DS(ON)}=3.5\Omega(\text{Max})@V_{GS}=5V, I_D=0.1A$
 $R_{DS(ON)}=10\Omega(\text{Max})@V_{GS}=2.75V, I_D=0.1A$
- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- Low Threshold Voltage(0.5V~1.5V)Make it ideal for Low Voltage Applications.
- SOT-23 for Surface Mount Package.



Absolute Maximum Ratings($T_A=25^\circ\text{C}$, unless otherwise noted.)

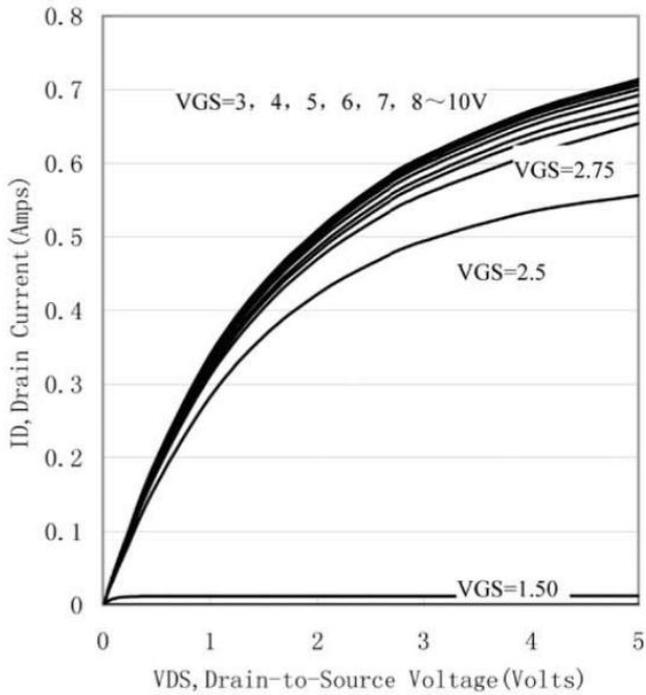
Parameter	Symbol	Rating	Unit
Drain-source Voltage	V_{DS}	50	V
Gate-source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	0.1	A
Operating Junction Temperature Range	T_J	-55 ~ 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics($T_A=25^\circ\text{C}$, unless otherwise noted.)

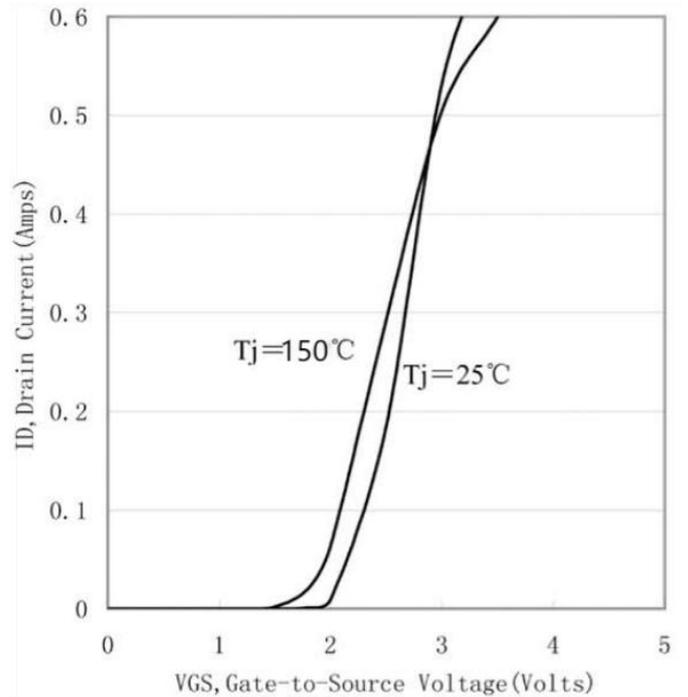
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain-source breakdown voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	50			V
		$V_{GS}=0V, I_D=10\mu A$	50			V
Gate Threshold voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.5		1.5	V
Drain-source leakage current	I_{DSS}	$V_{DS}=50V, V_{GS}=0V$			500	nA
		$V_{DS}=25V, V_{GS}=0V$			100	μA
Gate-source leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$			± 300	nA
Drain-source on resistance	$R_{DS(on)}$	$V_{GS}=5V, I_{DS}=0.2A$			3.5	Ω
		$V_{GS}=2.75V, I_{DS}=0.2A$			10	Ω
Input Capacitance	C_{ISS}	$V_{DS} = 10V, V_{GS} = 0V$ $f = 1MHz$		21.8	40	pF
Output Capacitance	C_{OSS}			5.6	15	pF
Reverse Transfer Capacitance	C_{RSS}			3.3	10	pF
Diode Forward Voltage	V_{SD}	$I_{SD} = 0.2 A, V_{GS} = 0 V$			2.5	V

Typical Characteristics

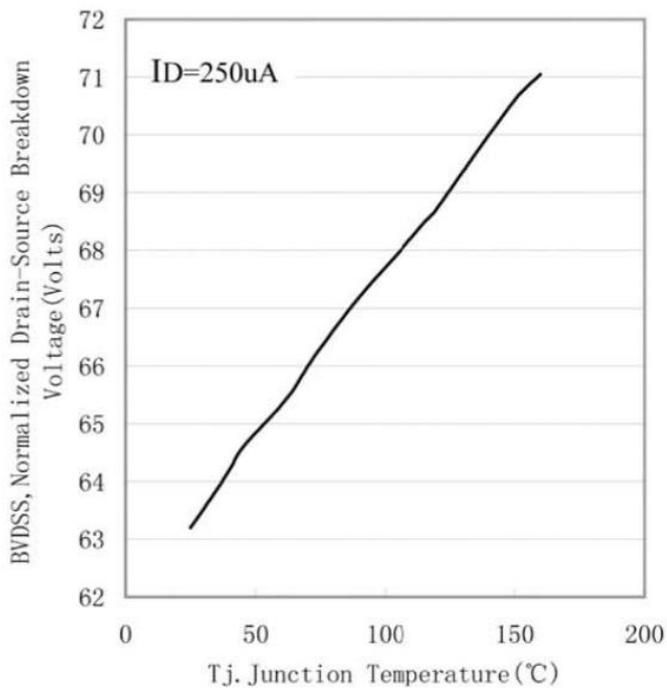
1. Output Characteristics



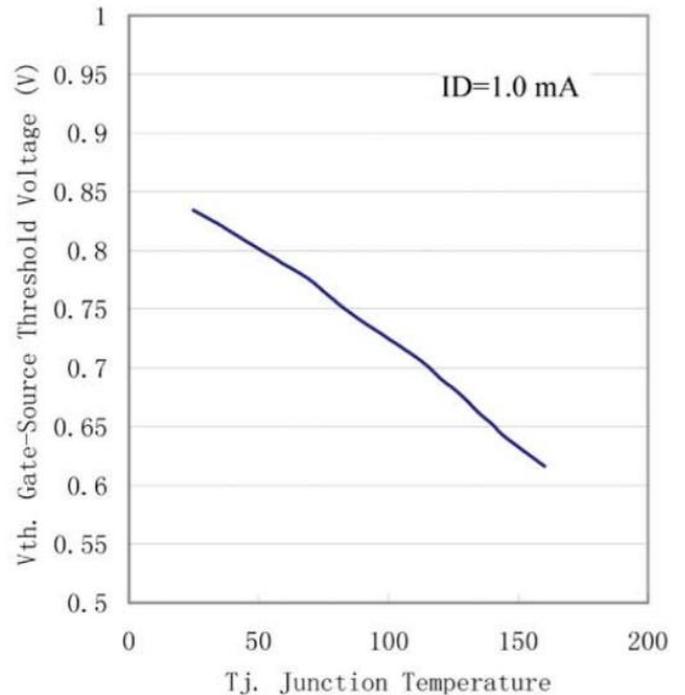
2. Transfer Characteristics



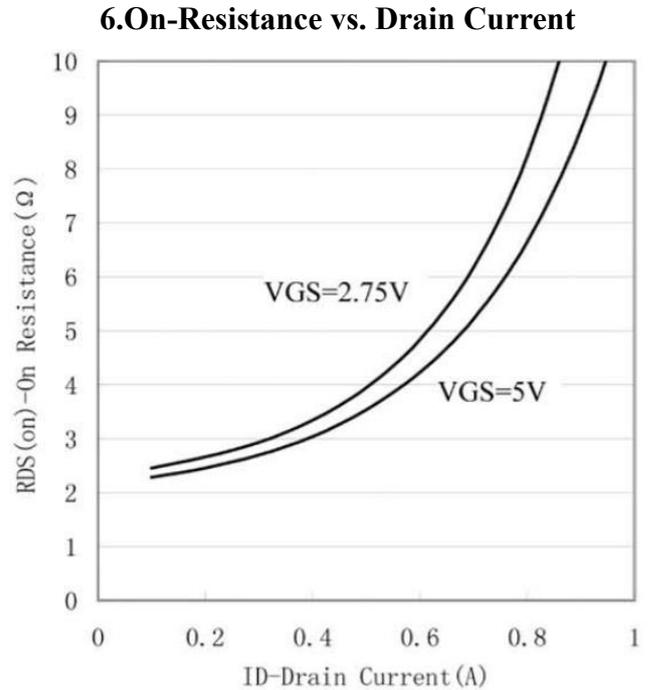
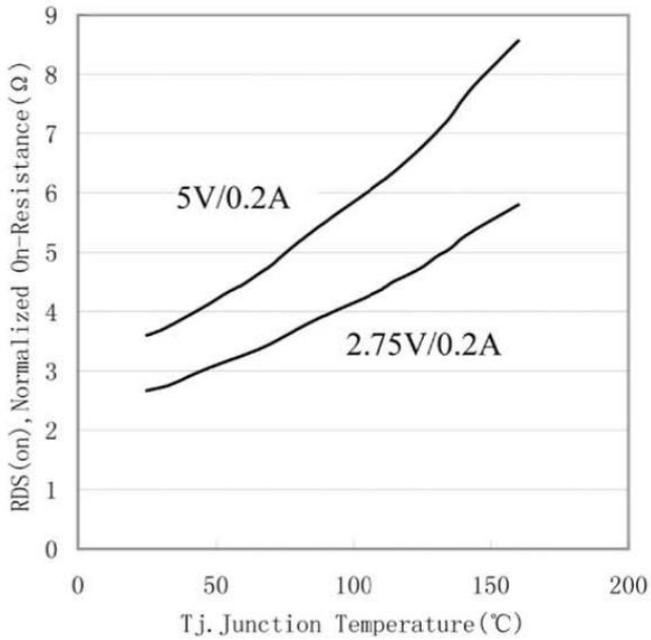
3. Breakdown Voltage Variation with Temperature



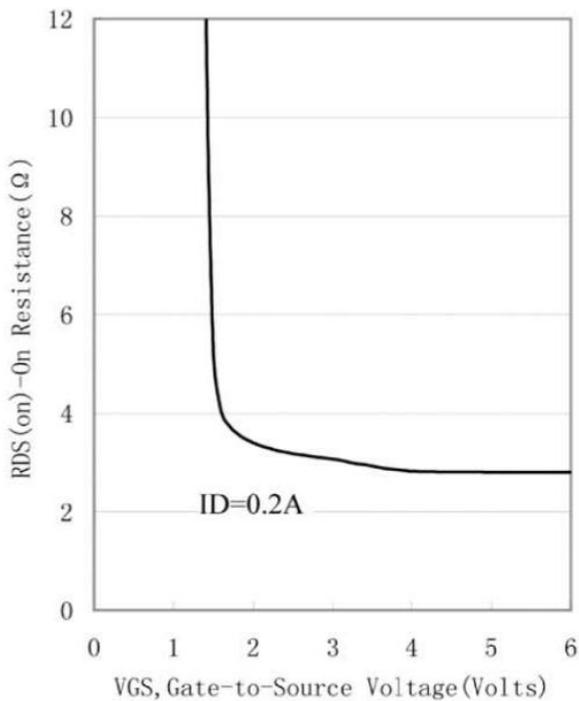
4. Gate Threshold Variation with Temperature



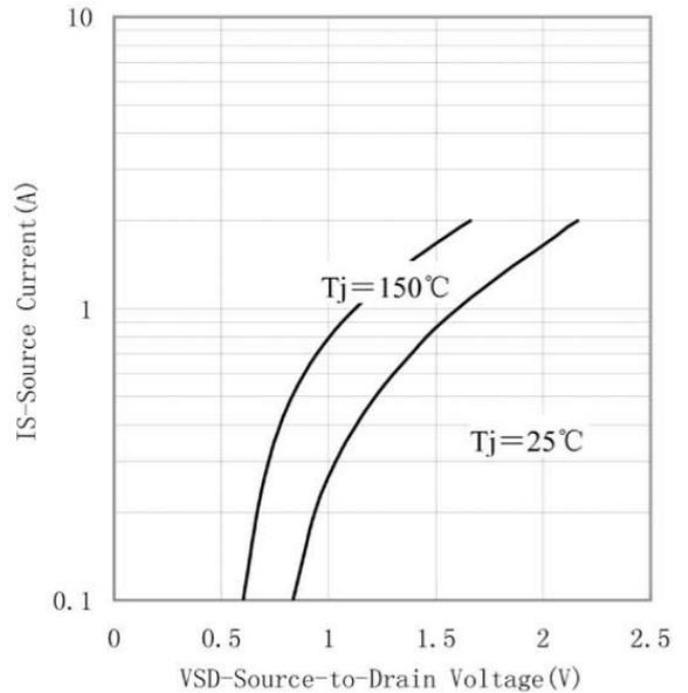
5. On-Resistance Variation with Temperature



7. On-Resistance vs. Gate-to-Source Voltage



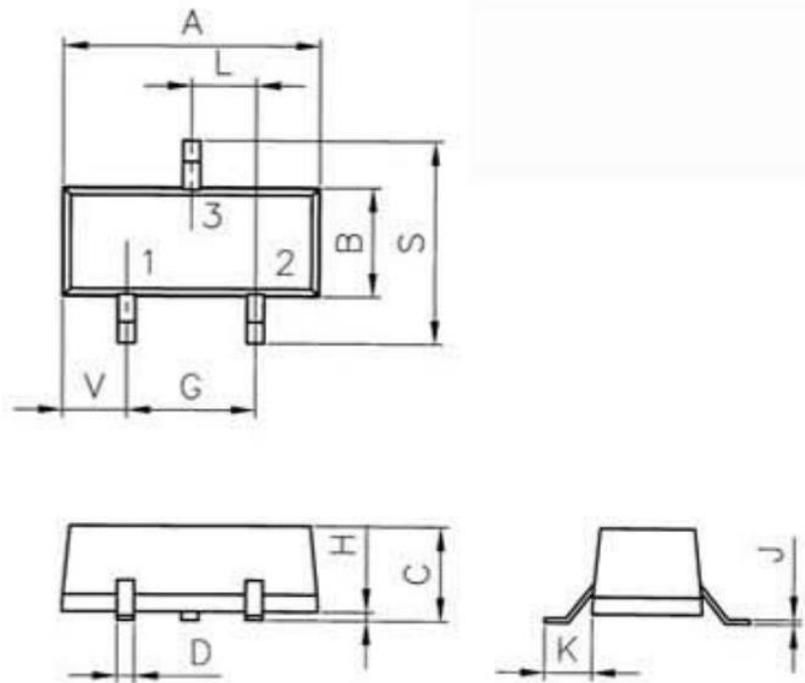
8. Source-Drain Diode Forward Voltage



Package Information

SOT-23

Dimensions in mm



Unit : mm

	SOT-23	
	min	max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.13
D	0.30	0.50
G	1.78	2.04
H	0.01	0.10
J	0.08	0.18
K	0.45	0.60
L	0.89	1.02
S	2.10	2.50
V	0.42	0.60